

Title (en)  
Pulse oximeter and pulse oximetry method

Title (de)  
Pulsoximeter und Pulsoximetriemethode

Title (fr)  
Oxymètre de pouls et méthode d'oxymétrie de pouls

Publication  
**EP 2135550 A1 20091223 (EN)**

Application  
**EP 09162886 A 20090617**

Priority  
JP 2008160013 A 20080619

Abstract (en)  
A pulse oximetry includes: irradiating living tissue with a plurality of light beams of different wavelengths; receiving the light beams transmitted through or reflected from the living tissue and converting the received light beams to electric signals which correspond to the different wavelengths; time-segmenting time series data of the electric signals; calculating, with respect to each of the segmented time series data of the electric signals, a slope value of a regression line between each two of the electric signals; calculating SaO<sub>2</sub> based on the slope value of each of the segmented time series data of the electric signals; constructing a histogram of SaO<sub>2</sub> for each predetermined number of time segments; and obtaining a mode value from the histogram as SpO<sub>2</sub> to be output of the pulse oximetry.

IPC 8 full level  
**A61B 5/00** (2006.01); **A61B 5/1455** (2006.01)

CPC (source: EP US)  
**A61B 5/1455** (2013.01 - EP US); **A61B 5/7207** (2013.01 - EP US)

Citation (applicant)  
• JP 2005095606 A 20050414 - NIPPON KODEN KOGYO KK  
• JP 2007090047 A 20070412 - NIPPON KODEN KOGYO KK

Citation (search report)  
• [Y] US 2007049812 A1 20070301 - AOYAGI TAKUO [JP], et al  
• [Y] US 2008033266 A1 20080207 - DIAB MOHAMED K [US], et al  
• [A] JP H07327964 A 19951219 - NIPPON KODEN KOGYO KK  
• [A] US 2004267140 A1 20041230 - ITO KAZUMASA [JP], et al  
• [DA] JP 2007090047 A 20070412 - NIPPON KODEN KOGYO KK  
• [DA] JP 2005095606 A 20050414 - NIPPON KODEN KOGYO KK

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DOCDB simple family (publication)  
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DOCDB simple family (application)  
**EP 09162886 A 20090617**; JP 2008160013 A 20080619; US 48684309 A 20090618